Liza M. Walsh
Hector D. Ruiz
WALSH PIZZI O'REILLY FALANGA LLP
Three Gateway Center
100 Mulberry Street, 15th Floor
Newark, New Jersey 07102
(973) 757-1100

OF COUNSEL (*admitted pro hac vice*):

Adam R. Alper
Brandon H. Brown
Natalie Flechsig
KIRKLAND & ELLIS LLP
555 California Street
San Francisco, CA 94104
(415) 439-1400

Michael W. De Vries
KIRKLAND & ELLIS LLP
555 South Flower Street
Suite 3700
Los Angeles, CA 90071
(213) 680-8400

Leslie Schmidt
KIRKLAND & ELLIS LLP
601 Lexington Avenue New
York, NY 10022
(212) 446-4800
Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

EAGLE VIEW TECHNOLOGIES, INC., and PICTOMETRY INTERNATIONAL CORP.,	Civil Action No.: 1:21-cv-10669 (RMB-SAK)
Plaintiffs,	**PLAINTIFFS' OPPOSITION TO DEFENDANT'S MOTION TO DISMISS**
v.	
GAF MATERIALS LLC,	*Filed Electronically*
Defendant.	

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I.   INTRODUCTION

Since 2008, EagleView has been *the* pioneer in producing highly accurate

roof reports that are generated using two specific forms of aerial imagery, using all

new, concrete technologies that took substantial time and resources for EagleView

to develop. EagleView's Asserted Patents[1] include specific claim requirements

capturing in concrete form these innovations that revolutionized the insurance and

construction industries, allowing for the first time a fast, cost-effective, safe, and

highly accurate computer-driven approach to measuring roofs. As set forth on a

patent-by-patent, claim-element basis below, these specific claim requirements

easily satisfy Step One of the *Alice* inquiry, and certainly reflect inventive concepts

under *Alice* Step Two.

The Court has already considered core claim requirements present in all the

Asserted Patents in reviewing validity under § 101 at numerous points during the

Xactware litigation, including at the motion to dismiss, summary judgment, and

judgment as a matter of law stages. Upon substantial review based on a well-

developed record, the Court found the patents there (three of the Asserted Patents

here) are non-abstract, and concluding that they contain numerous inventive

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[1] GAF's motion challenges only eight of the nine Asserted Patents, providing no discussion or analysis about the asserted '376 Patent. As with other of the Asserted patents, this Court has already concluded that the '376 is directed to patentable subject matter. Dkt. 11-2, Ex. 10 at 20, 23.

improvements—also present in the claims at issue here—that "revolutionized the roofing industry" and "obviated the need for manual measurements of roofs with a tape measure in order to estimate the cost of repairing a roof." Dkt. 11-2, Ex. 10 at 7. The Court found "the evidence regarding this breakthrough was overwhelming," including praise by competitors (finding the technology "cutting edge," "very accurate," and "innovative") and the press (hailing it "one of the biggest breakthroughs in the history of the industry"). First Amended Complaint (hereinafter, "FAC") ¶¶ 32-35. And, the Court specifically found that this praise was specifically tied to the claim elements at issue—*i.e.,* finding the "nexus" that GAF argues is absent. Dkt. 11-2, Ex. 10 at 32-34. These conclusions were based, in part, on those patents' claimed inventive use of specific types of images, correlation of those images, iterative user interface functionality involving 3D models, visual markers and wireframes, and subsequent generation of highly accurate roof reports (Dkt 11-2, Ex. 10 at 19-24)—all specific, unconventional requirements that appear in all of the Asserted Patents here—and a fact specifically pled in the FAC and which GAF does not (and cannot at this stage) substantively contest. FAC ¶¶ 28-31. This alone is sufficient to deny GAF's motion.

GAF's analysis is flawed from the outset. Instead of analyzing each patent individually (as EagleView does here), GAF generalizes that the patents—at large, as a group—concern five allegedly "conventional" computer functions, untethered

from any particular patents or claim requirements. GAF then walks through its "tests" for abstractness, applying each one variously to different patents (apparently conceding that at least some of the patents pass each test), once again with limited reference to the actual claim language. GAF's Step Two analysis suffers from the same deficiencies. And even on its merits, GAF's analysis is unavailing.

First, GAF incorrectly contends that the Federal Circuit has altered the legal analysis for patentability since this Court's recent rulings in the *Xactware* matter. Not so: far from changing the state of the law, GAF's recent Federal Circuit decisions, including *Yu v. Apple*, confirm the exact approach taken by this Court, rejecting patents lacking technological improvements in favor of those that, like EagleView's patents, claim cognizable improvements to computer technology and specific, concrete approaches for achieving the claimed goals. Neither *Yu* nor any other case disrupts the Court's *Xactware* patentability rulings.

Second, GAF's attempt to minimize the Court's prior analysis is incorrect. Far from considering only a "single, unifying abstract idea" in the *Xactware* matter, this Court engaged in a thorough claim-tethered analysis of those patents' claimed inventive use and correlation of specific types of non-stereoscopic images (including top-down and oblique views); user interfaces involving 3D models; visual markers and wireframes; and generation of highly accurate roof reports. GAF's contention that the Asserted Patents are directed to "five abstract ideas" requires that GAF, not

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Plaintiffs, "rewrite the claims at issue" to ignore concrete, specific limitations that guided this Court's prior analysis and mischaracterize the FAC's discussion of the Asserted Patents through misleading quotations.   GAF's conclusion that EagleView's patents are "directed to" merely "conventional computer functions" and "well-known algorithms" relies on the same errors made by Xactware, which this Court concluded "oversimplifie[d]" the claims in violation of Federal Circuit law and also dooms GAF's analysis here. Dkt 11-2, Ex. 10 at 23-24.

Third, GAF suggests that this Court has not considered "multiple tests" to determine patentability, but the patents easily pass those tests. Moreover, GAF makes identical arguments to those the Court considered, and rejected, in the *Xactware* case. For example, the Court has already considered whether the claims are reducible to "pen and paper," disagreeing that the claims "are just computerized routines of what a human could do without the software" and instead "set forth a ***technological solution***" to improve computer technology. Dkt. 11-2, Ex. 10 at 19, 23. While GAF contends that the claims are directed to the "application of an algorithm," this Court already concluded that such a reading "ignore[s] the claim language" and was "fatal to [Xactware's] § 101 challenge." Dkt. 11-2, Ex. 10 at 24.

Fourth, on *Alice* Step Two, GAF's contention that the claims do not contain any "inventive concept" starkly—and impermissibly at the pleading stage—contrasts with the patent claims and well-pled factual allegations in the FAC that

mandate a conclusion that EagleView's patents include specific improvements lauded by competitors, press, and federal courts. While GAF contends that EagleView's pled analysis was not "tethered" to any claim language, that is simply not correct, as the FAC does just that. *See, e.g.,* FAC ¶¶ 33-35; *see also* Dkt. 11-2, Ex. 10 at 32-34 (Court's order finding such a nexus).

Lastly, while GAF's motion can (and should) be denied on the merits, it is also premature. While the allegations set forth in EagleView's FAC—including documentary evidence and the lengthy history around the asserted patent family— provides more than sufficient grounds for this Court to deny GAF's motion outright, GAF's motion at best raises challenges that cannot be resolved in its favor at this juncture. Indeed, in the *Xactware* case, Judge Kugler denied a similar motion-to-dismiss challenge to five of the nine patents asserted here, concluding that the parties "dispute[d] the proper interpretation of the claims" and that the Court was "not prepared to declare a small number of claims representative in order to decide Defendants' Motion over Plaintiff's objection." Ex. A (Dkt. 104 in *Xactware* case, denying motion to dismiss the same '436, '840, '152, '880, and '376 patents asserted here). GAF's mere repackaging of Xactware's prior arguments confirms the same. GAF also fails to address even a single dependent claim of any Asserted Patent, incorrectly and illogically concluding that its generalized analysis of representative claims is enough to invalidate everything. GAF's motion should be denied.

II.   FACTUAL BACKGROUND

A.   EagleView Revolutionized the Insurance Industry with Innovative and Accurate Roof Reports

As set forth in the specifications of the Asserted Patents, prior to EagleView's inventions, roofing contractors preparing an estimate for homeowners were forced to physically visit a house and climb on the roof to take measurements.[2] EagleView's inventions established an entirely new alternative to manual measurements by creating accurate, 3D roof models in hours. Aspects of those inventions are delineated in the claims of the Asserted Patents, which concern critical technical improvements that allow a user to more accurately and reliably make iterative adjustments to a computer-generated 3D model of the roof and output a tangible roof report with real-world measurements of a physical property.

Praise for EagleView's patented innovations has been immense. As alleged in the FAC, news outlets noted that "Eagle View made one of the ***biggest breakthroughs in the history of the industry*** by creating a state-of-the-art software program that remotely snaps sophisticated aerial pictures of roofs and accurately measures lengths, pitches, valleys and other hard-to-see areas on roofs." FAC ¶ 35. EagleView's then-largest competitor admitted that EagleView's technology was

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[2] Dkt. 11-1, Ex. 3 ('152 Pat.) at 1:25-52; id., Ex. 5 ('961 Pat.) at 1:26-52; Dkt. 11-2, Ex. 7 ('568 Pat.) at 1:15-43; id., Ex. 8 ('960 Pat.) at 1:23-50; id., Ex. 9 ('149 Pat.) at 1:41-2:2; Dkt. 11-1, Ex. 1 ('436 Pat.) at 1:24-52; id., Ex. 2 ('840 Pat.) at 1:25-52.

"cutting-edge," "very accurate," "innovative," offered a "breakthrough," and was unlike "anything that [previously] emerged as possible." *Id.*, Ex. 10 at 7-8. Even GAF noted that its infringing roof report software provides "everything you would expect from [] EagleView," confirming that by using roof report software, "no longer does a contractor have to drive to the property, put a ladder up, climb up on the roof, you know, take out a tape measure, literally, and hand-measure the roof."[3]

B.   **EagleView's Family of Roof Report Patents Has Already Been Found Valid in View of Multiple Section 101 Challenges**

In 2019, after a multi-week trial in this Court, a jury ultimately found five of EagleView's patents valid and infringed by EagleView's competitors Xactware and Verisk. In confirming the ruling and denying those defendants' post-trial motions, this Court denied "all of Defendants' challenges to EagleView's resounding trial victory—from Defendants' section 101 challenge all the way through damages." Dkt. 11-2, Ex. 10 at 78. The five patents found valid under Section 101 in that proceeding include three of the same patents asserted here (the '436, '376, and '840

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[3]   https://www.nearmap.com/us/en/navig8-2020?utm_source=Social%20Media&utm_medium=LinkedIn&utm_term=organic&utm_campaign=21q1-navig8-2020&utm_content=&sfc=7012x000000ozYaAAI at 6:10-25; *see also* https://www.bigmarker.com/jobprogress/JobProgress-QuickMeasure-now-live?bmid=7162652c195a at 3:01-07, *id.* at 6:43-7:15 (GAF testimonial describing how Accused Product allowed customer to obtain measurements without climbing the roof) (videos available upon request).

Patents), with five of the six other Asserted Patents (the '152, '961, '568, '960, and '149 Patents) related to the those three.[4] As explained in more detail below, all Asserted Patents include similar concepts to those this Court relied upon in its ruling, including, *inter alia*, the use of specific aerial images; specific, iterative user interaction functionality such as "visual marker[s]" and "pitch determination marker[s]"; the generation of three-dimensional models that can be viewed and modified by a user; and the output of tangible, accurate roof reports.

With respect to *Alice* Step One, the Court held that "it is clear that EagleView's invention solved the problem of generating a roof repair estimate without direct 'human measurement of a roof,'" including by allowing a user to "change locations of the specified points on the two aerial views." Dkt. 11-2, Ex. 10 at 18, 10-11, 22. Accordingly, the claims "recite specific implementations that improve the functioning of the technological process." *Id.* at 11. The Court disagreed that claim elements shared among EagleView's Asserted Patents "are just computerized routines of what a human could do without the software," and instead

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[4] All five patents previously found patentable under Section 101 were invented by Chris Pershing and assigned to EagleView, as are eight of the nine Asserted Patents in the instant case. The '376 and '840 Patents previously found patentable claim priority to Provisional Appl. No. 61/197,904, filed on Oct. 31, 2008 ("'904 Application"). Similarly, and the '152 and '149 Patents also claim priority to the '904 Application. The '436 Patent previously found patentable claims priority to Appl. No. 12/148,439 ("'439 Application") and Provisional Appl. No. 60/925,072 ("'072 Application"). The '961 and '568 Patents claim priority to the '436 Patent itself, and the '960 Patent claims priority to the '072 and '439 Applications.

claim "a technological solution to the well-known problem of generating a roof report without a human's manual, direct measurement of a roof." Dkt. 11-2, Ex. 10 at 19. The Court found it unnecessary to proceed to *Alice* Step Two, but noted that it would have found that the claims "recite an inventive concept" under *Alice* Step Two because "EagleView's inventions were nowhere close to resembling the practice of climbing on rooftops with tape measures in hand" and instead were "groundbreaking." Dkt. 11-2, Ex. 10 at 25.

III.   LEGAL STANDARD

On a motion to dismiss, the Court must "accept all well pleaded factual allegations as true and draw all reasonable inferences from such allegations in favor of the complainant." *Worldcom, Inc. v. Graphnet, Inc.*, 343 F.3d 651, 653 (3d Cir. 2003). "Dismissal for failure to state a claim is appropriate only if it 'appears beyond doubt that plaintiff can prove no set of facts in support of his claim which would entitle him to relief.'" *Id.* (quoting *Conley v. Gibson*, 355 U.S. 41, 45–46 (1957)). The Court must consider all factual allegations in the complaint, including any exhibits or documents incorporated by reference. *In re Burlington Coat Factory Sec. Litig.*, 114 F.3d 1410, 1426 (3d Cir. 1997).

"A patent shall be presumed valid," and on a motion to dismiss under Section 101, "[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity." 35 U.S.C. § 282(a). The question of

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eligibility involves "a two-step analytical framework to identify patents that, in essence, claim nothing more than abstract ideas." *Bascom Glob. Internet Servs. v. AT&T Mobility*, 827 F.3d 1341, 1347 (Fed. Cir. 2016). The Court first determines whether claims are directed to an abstract idea and then whether the claims include an inventive concept that transforms the abstract idea into a "patent-eligible application." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 217 (2014). The first part of the *Alice* Step One analysis is to determine what the claims are "directed to," being "careful to avoid oversimplifying the claims" and not to "merely identify a patent-ineligible concept underlying the claim." *McRO*, 837 F.3d at 1313; *Vanda Pharm. Inc. v. West-Ward Pharm. Int'l Ltd.*, 887 F.3d 1117, 1134 (Fed. Cir. 2018). This requires reading the claims "in light of the specification," not in isolation. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016).

Patent claims directed to "non-abstract improvements to existing technological processes and computer technology," *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1149-50 (Fed. Cir. 2019), and "distinct process[es] to automate a task previously performed by humans" are patent eligible. *McRO*, 837 F.3d at 1313-14. "[W]hether a claim recites patent eligible subject matter is a question of law which may contain underlying facts." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). A patent may be determined ineligible at the Rule 12(b)(6) stage only "when there are no factual allegations that, taken as

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true, prevent resolving the eligibility question as a matter of law." *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018). The clear and convincing standard applies to any underlying fact issues relevant to Section 101. *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1338 (Fed. Cir. 2013).

IV.   THE PATENTS-IN-SUIT CLAIM PATENTABLE SUBJECT MATTER UNDER SECTION 101

A.   The Claims of the Patents-in-Suit Are Directed to Patentable Subject Matter

GAF requests that the Court accept its highly disputed contentions that all claims of eight of the nine Asserted Patents are both abstract and non-inventive.[5] This is incorrect based purely on the claims and patent specifications, and also is contradicted by the factual allegations of EagleView's FAC, which must be taken as true at this stage: the inventions claimed in the Asserted Patents revolutionized the industry and recite concrete improvements in roof-estimation technology.

1.   *Alice* Step One: The Claims Are Directed To Patentable Subject Matter And Are Not Abstract

In determining whether Step 1 of the *Alice* inquiry is satisfied, the Federal Circuit looks to whether the claims are "specific," "concrete," or have a "tangible" form. *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257-58 (Fed.

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[5] GAF's contention that certain asserted claims issued before the Supreme Court's *Alice* decision is irrelevant. *Alice* did not mandate invalidity of all pre-existing claims, and many asserted claims have survived multiple post-*Alice* Section 101 challenges including several of those at issue here.

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Cir. 2016). There is no question that is the case here. The Asserted Patents all require *specific* aerial images, describing apparatuses and methods that use those particular images rather than countless other ways to generate roof-measurement reports. FAC ¶ 27. They then provide "specific steps ... that accomplish the desired result" in a "concrete" way (*Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303-05 (Fed. Cir. 2018)), including through specific graphical user interface tools to interactively and iteratively modify markers, visual markers, and 3D models, all with specific claimed requirements and functionality. *See, e.g.*, FAC ¶¶ 28-29. These techniques output specific, highly-accurate roof measurements, including through specifically claimed roof reports and annotated 3D models, resulting in a different and better approach for using aerial images to obtain roof measurements. *CardioNet, LLC v. Infobionic, Inc.*, 955 F.3d 1358, 1370-71 (Fed. Cir. 2020) (criticizing "incorrect assumption that the claims are directed to automating known techniques."); *EcoServices, LLC v. Certified Aviation Servs., LLC*, 830 F. App'x 634, 642-43 (Fed. Cir. 2020) ("specific solution" for improving "human-operated washing systems"). Critically, these specific and concrete requirements prevent "pre-emption," "the concern that **drives** this [abstract idea] exclusionary principle[]," *Alice*, 573 U.S. at 216 (emphasis added), because "[t]here are countless other ways one could try to develop a roof measuring system other than using EagleView's patented selection of images." FAC ¶¶ 27-31.

a.   **The '880 Patent's Claims Satisfy *Alice* Step One[6]**

Far from delineating "conventional computer-based steps" as GAF argues (Mot. at 4), the '880 Patent claims non-abstract improvements to computer systems for identifying the correct location of buildings and related aerial images, in order to perform accurate roof measurements using aerial imagery. The claims of the '880 Patent are directed to an improved computer system for "determining attributes of a roof structure" by providing an iterative graphical interface tool using a "movable" "visual marker" that is "moved to a final location on top of the building," which indicates "location coordinates" that are used to "provid[e] visual access to one or more oblique images" in response to a "computer input capable of signaling user-acceptance of the final location" of the visual marker. Dependent claims add further limitations, including a user interface for generating outlines of roof planes (Cl. 4), and generating a printed report including specific aerial images (Cl. 9).

GAF's formulation of what the claims are "directed to" improperly overlooks the plain language of the claims, generalizing them as written "primarily in terms of an end result" "directed to the automated retrieval of an oblique image." Mot. at 5.[7] But the '880 Patent does not even use the word "automated" to describe image

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[6] Judge Kugler denied Xactware's attempt to dismiss EagleView's complaint on the '880 Patent, rejecting mischaracterizations similar to GAF's. Ex. A.

[7] GAF contends that its mischaracterization of the '880 Patent comes from Plaintiffs' FAC. Mot. at 5. Not so: the FAC makes no mention of "automated retrieval", but instead discusses the claimed specific user interfaces. FAC ¶¶ 114-119.

retrieval, and GAF's characterization ignores specific claim language requiring, *e.g.*, user manipulation of the claimed "visual marker," claiming not merely the "end result" but the specific steps necessary to achieve the patent's goals.   GAF's characterization that the patent "is not directed to a method of generating a roof report" is also incorrect, as the '880 Patent claims generation of a "printed report" (Cl. 9).

Under either "directed to" approach, these claims are far from abstract. The claims contain "specific," "concrete," and "tangible" forms, utilizing specific "oblique" and "straight down overhead view" aerial images. The claims then use "specific" user interface components requiring movable "visual marker[s]" and user-interactive "input field[s]" and "computer input[s]," delineating specifically *how* to accomplish that result using a specific interactive graphical interface tool that first provides a "computer input field" for a user to provide information "corresponding" to the location of a target building, from which it "provide[s] visual access to an aerial image," specifically a "straight down overhead view" image, upon which the claims overlay a "visual marker that is moveable on a computer monitor […] to more precisely identify the location of the building roof structure." Dkt. 11-1, Ex. 4 ('880 Pat.) at Cl. 1.   The claims thus allow for an iterative process for "precisely identify[ing]" that roof structure location, providing a "computer input capable of signaling user-acceptance of the final location of said marker," upon which it will

provide "visual access" to one or more specific oblique images. *Id.*

As an independent second indicia that Step One is met, the Federal Circuit assesses whether the claims are directed to a computer-based approach that replaces human activity. *McRO*, 837 F.3d at 1299. In such circumstances, the claims satisfy § 101 if the computer "is employed to perform a ***distinct process*** to automate a task previously performed by humans," as opposed to "where the claimed computer automated process and the prior method were carried out in the same way." *Id.* at 1314. Here, the claimed approach solves a specific technical problem by enhancing computer technology to allow for more accurately "determining attributes of a roof structure" through the use of aerial imagery. *Id.* at 5:30-35. The claims lay out a technique fundamentally distinct from what was previously performed by humans (measuring roofs using tape measures, Dkt. 11-2, Ex. 10 at 19), instead inventing an entirely ***different, better*** approach using aerial images and specific interactive tools to improve accuracy, and avoiding pre-emption by claiming the use of ***specific*** aerial images and user interface components. Dkt. 11 ¶¶ 27-31.

Third, the inclusion in the claims of specific and well-defined technical improvements directed to solving technical problems in the prior art establishes that the claims are not abstract. *Enfish*, 822 F.3d at 1336 (claims directed to a "specific improvement to the ways computers operate" not abstract); *Finjan*, 879 F.3d at 1304 ("a new kind of file that enables a computer security system to do things it could not

before" not abstract); *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1363 (Fed. Cir. 2018) (claims "directed to an improved user interface for computing devices" not abstract). Here, the claims solve a specific problem faced in the use of computer-aided roof measurement where aerial imagery corresponding to a selected street address "does not directly or perfectly correspond to [the] roof structure," thus requiring an interactive (*id.* 10:4-6), iterative user input functionality that "more precisely identifies the location of the building roof structure [] to be measured" (*id.* 10:9-12), allowing the user to ensure that the software subsequently "measure[es] the correct roof structure as opposed to, for example, measuring the nearby roof structure due to mistake/miscommunication." *Id.* at 10:25-29. The specific, concrete requirements of the claims thus improve computer functionality, confirming the claims are not abstract. And finally, with respect to preemption, the use of specific user interfaces and specific aerial images confirms that the claims do not preempt the field but rather claim only specific implementations. *DDR Holdings, LLC v. Hotels.com, L.P. et al.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014).

  b.   **The '436 Patent's Claims Satisfy *Alice* Step One**

The claims of the '436 Patent are directed to the use of specific, non-stereoscopic "image[s] of a building having a roof," where one image "provides a top plan view" and another "provides an oblique perspective view," in which the claimed system "correlate[s]" the images by "receiving an indication of one or more

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corresponding points on the building shown in each" of the two images and generates a roof report. Dkt. 11-1, Ex. 1 ('436 Pat.) at 2:18-25, Cls. 1, 2, 36. GAF mischaracterizes the '436 Patent's claims as "almost entirely functional language," attempting to reduce it to "essentially directed to a four-step process." Mot. at 6-7. These formulations vastly "oversimplify[]" the claims and ignore their specific requirements, *McRO*, 837 F.3d at 1313, making no mention of any of the specific and concrete claimed requirements described above and omitting express requirements delineated in the claims, including, *inter alia*, the specific and concrete requirements of "receiving an indication of one or more corresponding points" using the specific iterative user interface described therein. Dkt. 11-1, Ex. 1 ('436 Pat.) at Cl. 2. The Court has already found the '436 Patent directed to patentable subject matter, both at the summary judgment phase, (Dkt. 11-2, Ex. 13), and in denying a motion for a new trial, concluding it "addresses a concrete, tailored approach to measure the roof from which a roof estimate report is generated and that "there is nothing abstract about this." Dkt. 11-2, Ex. 10 at 20. Far from merely "functional language" (Mot. at 6), this claims correlations specifically—not abstractly—by requiring "particular information" for roof-modeling, and requiring use of specific aerial imagery and specific user-interface functionality. *McRO*, 837 F.3d at 1316.

      c.   **The '152 Patent's Claim Satisfy *Alice* Step One**

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The '152 Patent[8] is directed to an improved computer system for generating accurate roof measurement information using an interactive graphical interface tool to register aerial images to a reference grid that corresponds to a computer generated 3D model of a roof for making iterative adjustments to the 3D model. GAF merely paraphrases certain claim elements preceded with the conclusory adjectives "generic" and "conventional" (Mot. at 7) but provides no explanation for what makes those elements generic (they are not) nor explains how they are conventional (they are not, per the FAC and the '152 Patent). Regardless, these claims are not "generic" or "conventional"; Claim 10 delineates a specific, concrete method for "generating a roof estimate report" that requires the use of two specific "aerial images," each providing a "different view of the roof of the building," user interface tools that allow for "receiving an indication of a feature," of a building, "modifying a three-dimensional model" based on that user indication, "displaying a projection of the feature" onto those aerial images, and then "displaying a marker" that a user manipulates such that the computer system receives "an indication of a point" that it uses to "register[]… the aerial image to a reference grid corresponding to the three-dimensional model." Dkt. 11-1, Ex. 3 ('152 Pat.) at Cls. 1, 10.

Once again, the Federal Circuit's confirmatory indicia of non-abstractness are

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[8] As with the '436, '840, '376, and '880 Patents, Judge Kugler denied Xactware's motion to dismiss EagleView's complaint on the '152 Patent.

present.   The claims include specific and well-defined technical improvements directed to solving technical problems in the prior art, and the specification explicitly explains the benefit of implementing the iterative modification and display of a projection of a feature from a 3D model, as well as registration of the aerial image to a reference grid: the "operator [] is provided with useful visual cues as to the correctness of the 3D model and/or the correspondence between the aerial images." Dkt. 11-1, Ex. 3 ('152 Pat.) at 5:52-6:4; *id.* at 3:21-25. The '152 Patent's claims implement a technique far different than the manual approach of climbing on roofs to measure them, and its use of specific aerial imagery, user interface functionality, and output confirms it does not pre-empt the field. *DDR Holdings*, 773 F.3d at 1259.

> d. **The '840 and '149 Patents' Claims Satisfy *Alice* Step One**

The claims of the '840 and '149 Patents are directed to an improved computer system for generating a roof estimate report through iterative user manipulation of an interactive graphical interface tool that is overlaid on aerial roof images or shown in the same graphical user interface as the images, allowing a user to more accurately and reliably make iterative adjustments to a computer-generated 3D model of a roof and output a tangible, improved roof report. GAF contends that these patents are "not actually directed to pitch **determination**," but rather are directed to its own invented phrase "pitch **indication** by a user." Mot. at 8 (emphasis in original). GAF's inexplicable substitution of claim language alone cripples its analysis, as the

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'840 Patent claims specific requiring iterative adjustment of a pitch ***determination*** marker overlaid on top of specific claimed aerial image, along with numerous other specific and concrete steps that use that specific marker to modify an underlying model of the real-world structure. *See* § II.B; Dkt. 11-2, Ex. 10 at 20-23.

Regardless of whether the Court accepts Plaintiffs' "directed to" analysis or GAF's term substitution, Claim 1 of the '840 Patent includes numerous specific and concrete requirements that render it non-abstract, including the use of a "pitch determination marker" that is "overlaid on the aerial image" of a roof, the model of the roof being modified "based on the received indication of the pitch of the one planar roof section," all of which is used to generate a roof estimate report. Dkt. 11-1, Ex. 2 ('840 Pat.) at Cl. 1. Claim 1 of the '149 Patent also includes specific and distinct requirements, such as the use of an "interactive user interface control configured to be manipulated by an operator to align with a slope of a first planar roof section of the plurality of planar roof sections in order to specify pitch of the first planar roof section," "wherein the interactive user interface control is overlaid on" an aerial image of a roof, the model of the roof being modified "based on the received indication of the pitch," and generating a roof estimate report with specific requirements. Dkt. 11-2, Ex. 9 ('149 Pat.) at Cl. 1.

The Federal Circuit's confirmatory indicia of non-abstractness are likewise present here. Both patents describe a specific technical solution in which

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modification of a roof model is achieved in a specific way: the claimed pitch determination marker "can be directly manipulated by the operator in order to specify the pitch of a section of the building roof" (Dkt. 11-1, Ex. 2 ('840 Pat.) at 12:45-48; Dkt. 11-2, Ex. 9 ('149 Pat.) at 13:13-16), after which "the roof estimation system determines the pitch of the roof section, based on the configuration of the marker … with respect to the image and the reference grid" (Dkt. 11-1, Ex. 2 ('840 Pat.) at 12:57-62; Dkt. 11-2, Ex. 9 ('149 Pat.) at 13:25-30). In doing so, "the operator obtains feedback regarding the correctness and/or accuracy of the 3D model or other aspects of the model generation process, such as image registration and pitch determination." Dkt. 11-1, Ex. 2 ('840 Pat.) at 14:41-46, Dkt. 11-2, Ex. 9 ('149 Pat.) at 15:10-14. Far from merely automating human behavior, the '840 and '149 Patents replace the need to climb up on a roof to determine pitch, improving computer technology in a specific, non-preemptive way to allow for accurate roof measurements using aerial imagery.

     e.   **The '961, '568, and '960 Patents' Claims Satisfy *Alice* Step One**

Building on the claims of the patents above, the claims of the '961, '568, and '960 Patents are directed to the use of multiple specific aerial images of a building, including both a top plan view and an oblique perspective view, where the claimed system generates a 3D model of the roof by calibrating the imagery, including by identifying common reference points depicted in both images, triangulating those

points to determine the physical length between them, and calculating a pitch.

GAF cursorily addresses these patents without actually describing what they are about, ultimately contending only that their claims "mix-and-match the same generic process steps as the above-discussed claims." Mot. at 9-11. Not so. The key concepts of these three patents are specifically delineated in the asserted claims with concrete requirements, tangible inputs and outputs, and specific user interface functionality describing *how* pitch is determined. For example, the '960 Patent improves a computer system that can "calibrat[e]" those two specific types of images taken from different angles, including by "identifying common reference points depicted" in the images, "convert a distance in pixels between two points on the respective aerial image file into a physical length," and then "identify[]... a location in three-dimensional space by triangulating the reference points," by "projecting a first line originating from the first viewpoint through one of the reference points" and a "second line originating from the second viewpoint through the same reference point" to determine "an intersection of the first and second lines," allowing for the calculation of measurements and pitch of the roof and used to generate the tangible "roof [estimate] report." Dkt. 11-2, Ex. 8 ('960 Pat.) at Cl. 1. Similarly, the '568 Patent claims "calibrating" and "correlating" multiple specific aerial images by, *inter alia*, "registering pairs of points" on both aerial images that "correspond[] to a same point on the roof depicted in" each of the images, which is then used to

"generat[e]" a "three-dimensional model of the roof" and to determine pitch and direction of the pitch, and subsequently output a tangible "roof estimate report" that includes measurements of the roof. Dkt. 11-2, Ex. 7 ('568 Pat.) at Cl. 1. And the '961 Patent "calibrate[s]" the specific "top plan" and "oblique perspective view," "perform[s] an image analysis," generates a "pitch for each one of a plurality of roof sections" based on that analysis, which is ultimately used to output the tangible "roof report" that "includes the pitch of each of the plurality of roof sections." Dkt. 11-1, Ex. 5 ('961 Pat.) at Cl. 1. The concrete techniques claimed by the '961, '568, and '960 Patents solve specific technical problems for using computers to determine roof measurements from specific oblique and top-down aerial images, enabling generation of roof measurements in a completely new way. As with the other patents, this is distinct from previous methods to measure roofs, and does not preempt the field.

2.   **GAF's Arguments On *Alice* Step One Are Incorrect**

   a.   **GAF's Generalized Claim That The Patents Are Abstract Is Inconsistent With The Claims And Incorrect**

GAF begins by arguing that the patents—at large, as a group—are directed to five allegedly "conventional" computer systems which it claims either use "conventional computer functions" or "well-known photogrammetric algorithms and conventional user input," outputting the results in a "conventional format." Mot. at 14. This analysis is unsound—it is untethered to any particular patent, let alone

the claim requirements, and relies on after-the-fact labels such as "automated image retrieval," "3D model generation," and other descriptions that "oversimplify[]" and ignore the actual specific and concrete requirements described above in each of the claims. *McRO*, 837 F.3d at 1313. This generalization of the invention at a high level of abstraction as directed to "conventional" and "well-known" technologies has been repeatedly rejected by the Federal Circuit, and yet underlies (and is fatal to) GAF's entire analysis under *Alice* Step One, as it was to Xactware in the *Xactware* case.

GAF's other contention in this section—that recent Federal Circuit decisions alter this Court's well-reasoned and well-supported prior analysis—is equally unavailing. There has been no change in the Federal Circuit law as it relates to the EagleView patents, and GAF's cases are easily distinguishable. *SynKloud* (Mot. at 14, 24) merely confirms that claims that do not "identify any specific 'improvements'" are unpatentable; this is unlike EagleView's patents that lay out and enable specific, concrete technological improvements to computer systems that resulted in revolutionizing the way roofs were measured. FAC ¶¶ 26-37; § IV.A.1. Nor does *Yu* impact this Court's previous analysis of EagleView's patents, and instead confirms the patentability of the actual inventions captured here in EagleView's claims. The patent at issue in *Yu* claimed a camera that "enhanced" one image with the use of another image, which the inventor did not even contend was novel and admitted in the specification proposed a "generic solution." *Yu v.*

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Apple Inc., 1 F.4th 1040, 1043 (Fed. Cir. 2021). Unlike here, the claims failed to provide any specific, concrete steps for how to implement the enhancement, leading to a "mismatch" between the claim language and the proposed "specific solution" of the patent. *Yu*, 1 F.4th 1040 at 1043-45. In contrast, there is no "mismatch" here: as the Court has already previously found, EagleView's claims specifically delineate exactly how to obtain high-accuracy measurements from aerial imagery, through the use of a specific and concrete selection of aerial images, expressly claimed components of iterative, interactive graphical user interface tools, and output of a specific roof report. Dkt. 11-2, Ex. 10 at 18-25; *id.*, Ex. 13 at 7-11.

GAF proposes that the only "allegedly specific solution" of the Asserted Patents is "image correlation" followed by "report generation," Mot. at 16, which is inconsistent with the ***actual claim language*** that sets forth numerous, specific requirements outlined above. § IV.A.1; *Yu*, 1 F.4th at 1045. At bottom, GAF's approach—which seeks to "oversimplify[]" the claims in order to "merely identify a patent-ineligible concept underlying the claim" (*McRO*, 837 F.3d at 1313; *Vanda Pharms.*, 887 F.3d at 1134)—has long been criticized by the Federal Circuit and is no different than the approach this Court dismissed in the *Xactware* litigation.

b.   **The Claims Are Directed to Improved Computer Functionality and Do Not Use Computers Only as a Tool**

As its first Step One "test," GAF contends that the '880, '436, '568, '960, and

'961 Patents[9] use computers "merely as a tool." Mot. at 17-18. Not so. As the Court previously found, the '436 Patent improves computer functionality, as it is "directed to improved systems, media, and methods for using non-stereoscopic photographs to generate accurate roof models and reports," "set[ting] forth a **_technological solution_**," rendering its claims non-abstract. Dkt. 11-2, Ex. 10 at 19, 23 and Ex. 13 at 7. This applies equally to the other four patents: the '960, '961, and '568 Patents are specifically directed towards methods of "calibrating" and "correlating" oblique and top-down images to generate accurate roof measurements, and the '880 Patent is directed to specific user interface techniques for manipulating a visual marker on a top-down image to identify appropriate oblique images for use in measurements. Each of these patents solves the technical challenges of generating accurate roof reports by, *e.g.*, providing an operator with "feedback regarding the correctness and/or accuracy of the 3D model or other aspects of the model generation process, such as image registration and pitch determination," rendering them non-abstract. Dkt. 11-1, Ex. 2 ('840 Pat.) at 14:41-46; Dkt. 11-1, Ex. 3 ('152 Pat.) at 14:41-46; Dkt. 11-2, Ex. 9 ('149 Pat.) at 15:10-14; *Core Wireless*, 880 F.3d at 1363.

GAF repeats its contention here that *Yu* changed the law, which as discussed above is flatly incorrect. Mot. at 18; § IV.A.2.a. In contrast to the patent claims

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[9] GAF does not contend that the remaining three patents at issue in its motion fail this test, which confirms their patentability.

here, the patent at issue in *Yu* failed to claim *any* specific improvement, claiming only "conventional camera components" that "perform only their basic functions" without claiming "the particular configuration…that allegedly departs from the prior art." *Yu*, 1 F.4th at 1043-45. GAF's other citations stand for that same principle and do not disrupt this Court's conclusion that the EagleView patents disclose "a technological solution to the well-known problem of generating a roof report without a human's manual, direct measurement of a roof." Dkt. 11-2, Ex. 10 at 19; *Procon Analytics, LLC v. Spireon, Inc.*, No. 19-201, 2021 WL 1269081, at *6 (E.D. Tenn. Apr. 6, 2021) (claiming no improvement to conventional computer technology).

GAF's argument that the claims of the '880, '436, '568, '960, and '961 Patents "draw[] on existing computer functions and architecture," utilize "inherent [computer] functions," or build on photogrammetric equations "described in [] textbooks" does not change this analysis, as such circumstances do not "doom [] claims to abstraction." *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1349 (Fed. Cir. 2017); Mot. at 19-21.   Instead, Section 101 asks whether claims ***improve*** a technological process, not whether those processes make use of computer components to do so. As this Court held in *Xactware*, just as "claims directed to a new and useful technique for defining a database that runs on general-purpose computer equipment are patent eligible," so too are EagleView's claims for transforming images into accurate roof-measurement reports using the claimed

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specific technological improvements, including through "correlating" and "calibrating" specific forms of aerial imagery in the '436, '568, '960, and '961 Patents, and implementing user interfaces that allow for specific manipulation of visual markers and user interface functions for the '880 Patent. *Thales*, 850 F.3d at 1349; Dkt 11-2, Ex. 10 at 23.[10] As recognized by this Court's prior orders, these patents undeniably do improve computer functionality, and GAF's attempt to characterize the claims without their respective improvements merely "ignore[s] the claim language" and is "fatal to [GAF's]" challenge. Dkt. 11-2, Ex. 10 at 7, 24.

In fact, while GAF admits that "improvements in graphical user interfaces" may be considered the "hallmark[] [of] patent-eligible computer functionality improvements" (Mot. at 18-19), it ignores claim language delineating those specific improvements. *Realtime Data LLC v. Array Networks Inc.*, No. 17-0800, 2021 WL 1752045, at *16 n.4 (D. Del. May 4, 2021)). For example, the '880 Patent is not directed to mere "Automated Image Retrieval" as GAF contends, but claims specific, concrete improvements to computerized user interface tools such as user-manipulable "visual marker[s]," "input field[s]," and "outline drawings" for a more

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[10] Even if GAF were correct that the claims in the '436 and other patents rely entirely on known computer techniques (which they do not), that does not preclude patentability, as an "inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces," *see, e.g., Bascom*, 827 F.3d at 1350, and such a "combined order of specific rules" may still describe "an improved technological result." *McRO*, 837 F.3d at 1315-16.

accurate selection of aerial imagery for roof measurement. Dkt. 11-2, Ex. 4 ('880

Pat.) at Cls. 1, 7; § IV.A.1.a. Other patents GAF challenges on this argument claim

similar user interface improvements, including correlation that is performed by

"receiving an indication of [] corresponding points" in the '436 Patent or by

"identifying common reference points" in the '960, '961, and '568 Patents, all of

which are claimed to create an improved methodology for using computers to obtain

roof measurements from specific aerial images, as discussed above.   These

improvements do far more than merely "improve[e] a user's experience" or provide

mere "efficiency gains" (Mot. at 19), but rather, as pled in the FAC and confirmed

by this Court's orders, "revolutionized" an entire industry by providing, for the first

time, computerized technology to determine accurate roof measurements using

specifically-selected aerial images taken from different angles. Dkt. 11-2, Ex. 10 at

7; FAC ¶ 26. Faced with these dispositive allegations, GAF suggests that the FAC

performs the "wrong comparison," Mot. at 19, but it is exactly the right comparison,

which shows how the prior art functionality, without the patented inventions, was

improved by them. FAC ¶¶ 26-31. There is no dispute that these allegations must

be taken as true at this stage, dooming GAF's motion. *Aatrix*, 882 F.3d at 1125.

     c.   **The Claims Cannot Be Performed Using a Pen and Paper**

For its second test, GAF focuses on claims from four patents which it alleges

can be implemented manually with pen and paper. Mot. at 21-23; FAC ¶¶ 31-35.

But the claims of the '880, '436, '840, and '149 Patents[11] have never been implemented that way, nor could they: the claim language uses concepts not reducible to "pen and paper," including "displaying a projection of [] feature[s]" on a computer display, "modifying a three-dimensional model" of a roof, providing a movable "visual marker" and "computer inputs," or performing iterative user-interface steps with "pitch determination marker[s]." Rather, EagleView's claims are "employed to perform a distinct process to automate a task" from what was previously performed by humans, *McRO*, 837 F.3d at 1299. Notably, GAF does not contend that any patents other than the '880, '436, '840, and '149 Patent can be implemented by humans, confirming their patentability under this test, including because of their requirements to manipulate certain "visual marker[s]," "registering pairs of points" on images, or "registering" an aerial image "to a reference grid" that "correspond[s] to the three-dimensional model." As repeatedly confirmed by the FAC's allegations, these are not human behaviors that can or ever were replicated with a pen and paper, Dkt. 11-2, Ex. 10 at 22-23, Dkt. 11-2, Ex. 13 at 9-10, which is why this Court previously rejected the identical argument that the Asserted Patents

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[11] Defendant vaguely alleges that it challenges the "Pitch Determination claims" of failing this test (Mot. at 22) but with no reference to any claim language. If Defendant's challenge is to the '960, '961, and '568 Patents, rather than the '840 and '149 Patents, its argument has the same infirmities described here in addition to making no mention of any of the additional limitations of those three patents.

"are just computerized routines of what a human could do without the software."

Dkt. 11-2, Ex. 10 at 19; Dkt. 11-2, Ex. 13 at 9. Indeed, had such a "pen and paper"

equivalent existed, as GAF contends it does without evidence, these Patents would

not have issued over the prior art, nor survived the countless *inter partes* review

challenges levied by Xactware or the invalidity challenge at trial.

This is in stark contrast to the claims in *Univ. of Fla.*, whose patent expressly

admitted that it sought to "automate 'pen and paper methodologies' to conserve

human resources and minimize errors." *Univ. of Fla. Rsch. Found., Inc. v. Gen.*

Elec. Co., 916 F.3d 1363, 1367 (Fed. Cir. 2019). Here, the Asserted Patents' claims

and specifications, allegations in the FAC, and this Court's prior orders all confirm

that the asserted claims are directed to enhancements to computerized technology

that have never been performed manually. Dkt. 11-2, Ex. 10 at 22-23; Dkt. 11-2,

Ex. 13 at 9-10. These facts are dispositive at this stage, *Aatrix*, 882 F.3d at 1125, as

they demonstrate how the computerized approach of the claims **replaces** human

activities with a different process, *e.g.*, the manner of performing correlation, the use

of specific types of images, pitch determination, imagery identification, and the other

claimed functionality, undisputedly confirming eligibility. *McRO*, 837 F.3d at 1314.

    d.   **The Claims Are Not Merely Directed to a Desired Outcome, and Instead Explain How to Achieve the Outcome**

The claims of the Asserted Patents do not merely claim a "desired outcome."

As explained in § IV.A.1, *supra*, the claims lay out a series of steps performed on a

computer, and describe exactly *how* those steps are carried out (*e.g.*, through specific actions by a user in a specific type of interactive user interface) to accomplish specific outputs (*e.g.*, tangible roof reports). This has been confirmed by the Court's order denying a new trial in the *Xactware* litigation, which found that the claims "require[] specific, tangible images as inputs and generate[] tangible roof-estimate reports as outputs" and "require[] modifying a model of the roof based on specific adjustments to claimed markers on the 2D roof images." Dkt. 11-2, Ex. 10 at 20. This is a hallmark of § 101 *patentability* as the claims specifically lay out "how" to implement the improvement, *McRO*, 837 F.3d at 1316, with "specific steps … that accomplish the desired result" in a concrete way. *Finjan*, 879 F.3d at 1303-05.[12]

Indeed, although GAF contends that for the all but the '961 and '376 Patents, the "claims and specification offer no answer to the critical question of 'how,'" the claims and specification do exactly that. While GAF contends that the '880 Patent does not describe "how [] that image [is] selected," or "[h]ow... the database use[s] the inputted data to find the correctly corresponding image," Mot. at 23, this ignores

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[12] Unlike the claims in each of the cases cited by GAF (Mot. at 23), the claims of the Asserted Patents recite "particular methods of achieving the result" (*Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1295 (Fed. Cir. 2020)), that "go beyond functional language and explain *how* the functions are achieved" (*Procon Analytics*, 2021 WL 1269081, at *8), and recite a specific "process to achieve" a result. *Gabara v. Facebook, Inc.*, 484 F. Supp. 3d 118, 126 (S.D.N.Y. 2020), *aff'd*, 852 F. App'x 541 (Fed. Cir. 2021).

the '880 Patent's claim elements requiring input of "first location data" provided by

a user, which the claims then use to "provid[e] visual access to an aerial image []"—

which must be a "straight down overhead view" image—which the specification

explains could come from a "Google Earth imagery database." Dkt. 11-1, Ex. 4

('880 Pat.) at 9:64-67. The claims delineate a series of iterative user interactivity

steps precisely describing what must be done, including movement of a "visual

marker" until it "precisely identif[ies] the location" of the target and enabling the

user to "signal[] user-acceptance," from which the system provides "one or more

oblique images" that "correspond[]" to the location coordinates indicated by the

user's use of the graphical user interface." *Id.* at Cl. 1, 13:64-14:8.

GAF's other questions are similarly readily answered: the '436, '568, '152,

and '960 Patents' claims and specifications describe specifically "how" a 3D model

is generated based, including by correlating images by "receiving an indication of

one or more corresponding points" in each image ('436, Cl. 2), "registering pairs of

points" between the images ('568, cl 1), "identifying common reference points"

depicted in both images ('960, cl. 1), receiving an "indication" of a point on an image

that registers an aerial image to a "reference" grid ('152, cl 10), using the "calibration

information" of both aerial images ('961, cl. 1). Likewise, for the '840 and '149

Patents, the claims specifically require the use of a "displayed pitch determination

marker" or "alignment of [a] displayed interactive user interface control," an

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"indication of [a] pitch" that is used to modify an existing three-dimensional model. The specifications further explain that a "triangulation" methodology can "project[] a line" from the observation point to the claimed "reference point" in each image, which "allows the software to build a 3D model of the structure." Dkt. 11-1, Ex. 1 ('436 Pat.) at 6:50-67. Other algorithms for doing so are "described in detail in textbooks" and other sources, *id.* at 7:1-7, a point which GAF makes repeatedly throughout its brief in other sections but ignores when arguing there are "no … disclosures of any kind as to how" the claimed generation works. *Compare* Mot. at 20 (arguing the '436 Patent describes algorithms for generating a roof model) *with* Mot. at 24 (arguing the '436 does not describe how to generate a roof model). Likewise, although GAF contends that no "specification of the Patents-in-Suit" answers how pitch calculation is performed (Mot. at 24), the '840, '149, '961, '568, and '960 Patents state that based upon the identification using the claimed pitch determination marker, the pitch "can be easily calculated from such a representation using basic trigonometry." Dkt. 11-1, Ex. 2 ('840 Pat.) at 8:56-57.

And unlike *Yu*, which merely claimed "enhancing" two images without saying how, the Asserted Patents describe *how* their novel correspondence between aerial images is performed (*e.g.*, through specific markers and steps based on displayed aerial images providing different views), *how* specific calculations are determined, including through using specific visual markers, and *what* the enhancement is

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(increased accuracy and user feedback). *Yu*, 1 F.4th at 1043; Mot. at 15.

        e.   **The Claims Are Not Merely Directed to Data Manipulation**

GAF asserts that the claims of five Asserted Patents ('880, '436, '152, '149, and '961) are directed to mere "manipulation of data" or application of algorithms, utilizing a nonsensical table (Mot. at 25) that overtly omits specific claim requirements in its continued mischaracterization of the asserted claims, and in fact confirms that the claims are about far more than merely modifying data, but include specific requirements for interacting with a user interface (including through user input fields, movable visual markers, and pitch determination markers) that, through omitted claim language, lead to modifying 3D models of the roofs being measured. The Court has already rejected this argument, finding that the claim elements shared among the Asserted Patents are far more than a "few 'well-known math equations' and 'data-manipulation models,'" and confirming that Xactware "ignore[d] the claim language" to reach those conclusions, which was "fatal to [its] § 101 challenge." Dkt. 11-2, Ex. 10 (Dkt. 901) at 24. Indeed, the Asserted Patents are nothing like those that "start[] with data, add[] an algorithm, and end[] with a new form of data" as GAF contends (Mot. at 24), but define specific improvements to computer functionality, including user interface and display functionality, that allows for the creation of accurate roof reports using multiple specific images taken from different angles. Unlike the patents in *RecogniCorp* and *SAP*, the Asserted

Patents offer specific, tangible improvements to computer technology that claim exactly how to achieve the claimed result, and thus include "the specificity required to transform a claim from one claiming only a result **to [a claim] claiming a way of achieving [that result]**." *SAP Am., Inc. v. InvestPic, LLC,* 898 F.3d 1161, 1167 (Fed. Cir. 2018) (emphasis added). Indeed, as described above, it is immaterial that the claims may partly rely on "well-known photogrammetric algorithms." Mot. at 14. EagleView did "not seek to patent a mathematical formula" or "pre-empt the use of [an] equation" within a particular field—but instead "only to foreclose" using photogrammetric correlations "in conjunction with all of the other steps in the[] claimed" novel invention. *Diamond v. Diehr*, 450 U.S. 175, 187 (1981); *Thales*, 850 F.3d at 1349 ("mathematical equation[s] … do[] not doom [] claims to abstraction").

B.   *Alice* **Step Two: The Asserted Patents Recite Inventive Concepts**

As set forth in the specifications of the Asserted Patents and the FAC, prior to EagleView's invention, roofing contractors preparing a roof repair or replacement estimate for homeowners were forced to physically visit a house and climb on the roof to take measurements. EagleView's inventions, as captured by the claims of the Asserted Patents, established an entirely new alternative to manual measurements by creating accurate, 3D roof models in hours that was widely praised by both the public and EagleView's own competitors as "revolutionary" and a "breakthrough" development never before seen in the industry. Dkt. 11-2, Ex. 10 at

25. Indeed, the Court previously noted that it would have found that the claims "recite an inventive concept" under *Alice* Step Two because "EagleView's inventions were nowhere close to resembling the practice of climbing on rooftops with tape measures in hand" and instead were "groundbreaking." *Id.*

These improvements are enabled by specific and concrete elements found in each of the Asserted Claims—precisely the types of particularized claim elements that are regularly found to qualify as *Alice* Step Two "inventive concepts" that are not merely well-understood, routine, or conventional. *Berkheimer*, 881 F.3d at 1367-68. These specific claim elements include, *e.g.*, correlation or calibration of two non-stereoscopic aerial images (as in the '436, '961, '568, and '960 Patents), the iterative use of a pitch determination marker ('840), interactive user interface control to specify pitch ('149), or other visual markers to increase accuracy ('880), the displaying of projections of 3D models on multiple aerial images and subsequent registering of aerial images to a reference grid ('152), and countless other features of the Asserted Claims all represent specific technical and inventive solutions that enable real-world, measurable improvement computer technology, as pled, is precisely the type that the Federal Circuit has repeatedly held satisfies Section 101, and must be taken as true at this juncture, justifying rejection of GAF's arguments on *Alice* Step Two. *Bascom*, 827 F.3d at 1351; *Aatrix*, 882 F.3d at 1125. These technological solutions are "necessarily rooted in computer technology in order to

overcome a problem specifically arising in the realm of computer" technology, and are thus inventive under Step Two. *DDR Holdings*, 773 F.3d at 1248-49, 1257-58.

GAF once again fails to properly perform the *Alice* analysis, failing in *Alice* Step Two to assess any of these specific claim elements. Instead, GAF contends that the FAC does not specifically link the claims of the Asserted Patents with the pled evidence of inventiveness; but this is incorrect as both the FAC and prior rulings expressly tie the specific advantages described therein to the claims (FAC ¶¶ 28-35; Dkt. 11-2, Ex. 13 at 11; Dkt. 11-2, Ex. 10 at 25 n.9). GAF also contends that novelty of the claims is inappropriate as part of the *Alice* Step Two inquiry, but this too falls short. Unlike the patent owner in *WhitServ,* who contended that the court must "consider objective criteria of non-obviousness as part of the *Alice* inquiry," *WhitServ LLC v. Dropbox, Inc.*, 854 F. App'x 367, 373 (Fed. Cir. 2021), EagleView contends that the press praising its inventions are "'overwhelming' evidence" that the inventions were "critical to the industry" and thus inventive, the paramount question in an *Alice* Step Two analysis. FAC ¶¶ 32-33. GAF's tag-on argument, that the '880 Patent somehow conceded that the Asserted Patents are non-novel is misplaced: the '880 Patent was filed many years after the other patents at issue here, and thus was rightfully praising the other earlier-filed Asserted Patents.

Further, GAF's suggestion that the Court's prior analysis of the technology underlying the Asserted Patents should be jettisoned is without merit. *First*, the

Court's findings of inventiveness on the three patents at issue in the *Xactware* litigation rely on improvements specifically tied to claim requirements in all Asserted Patents, including the use of specific aerial images, iterative user interfaces that allow for the generation and modification of 3D models, and highly-accurate roof reports. *Second*, GAF mischaracterizes Plaintiffs' positions in the *Xactware* litigation, where Plaintiffs identified far more than merely three inventive concepts and specifically tied the many inventive concepts of those claims to factual evidence of their inventiveness. Dkt. 11-2, Ex. 10 at 32-34. *Third*, GAF's argument that no "allegedly inventive concepts" are claimed in the Asserted Patents (Mot. at 29) is a repeat of its incorrect characterizations of the claims in *Alice* Step One.

C. GAF's Motion Improperly Ignores All Dependent Claims

Defendant's motion fails to consider or challenge any of the dependent claims, instead making a conclusory allegation that the claims it challenges are representative. They are not—as explained above, the dependent claims and separate independent claims all provide additional, novel, patentable subject matter. Despite Defendant's contention (Mot. at 13-14, n.6), no Court nor Rule 8 requires a patent plaintiff to identify all asserted claims in a complaint. *Promos Techs., Inc. v. Samsung Elecs. Co.*, No. 18-307-RGA, 2018 WL 5630585 (D. Del. Oct. 31, 2018) ("[T]he use of exemplary pleading of claims is sufficient to satisfy Rule 12(b)(6)."). Defendant's citation to *NovaPlast* is inapposite, as it involved a failure to allege even

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a single claim properly. *NovaPlast Corp. v. Inplant, LLC,* 2021 WL 389368 at *8.

    D.   **GAF's Requested Ruling Is Premature At Best Because There Are Disputed Factual and Expert Issues That Must be Resolved**

The Court can also reject GAF's challenge without reaching the merits. *First*, nearly all of GAF's arguments impermissibly contradict the factual allegations of the FAC, as described above. When resolved in EagleView's favor, as they must be on a motion to dismiss, these facts establish that EagleView's patents are patent eligible. *Aatrix*, 882 F.3d at 1125. *Second*, despite its arguments to the contrary (Mot. at 14 n.7), GAF raises questions of claim construction, including by applying incorrect interpretations of the claim language to eviscerate its meaning or importing claim limitations to try to render the claims abstract. For instance, GAF appears to disregard requirements associated with correlating images, manipulating visual markers and pitch determination markers, and generating 3D models, and at other times reads requirements such as "automated image retrieval" into claims that do not use those words. While GAF's incorrect claim constructions and conclusory opinions of representativeness can be disregarded at this stage (which therefore dooms its motion), at a minimum they compel denial of this motion until these issues of claim scope can be resolved, just as Judge Kugler did in the *Xactware* litigation at this stage. *Aatrix*, 882 F.3d at 1125, 1128; Ex. A.

V.   **CONCLUSION**

Plaintiffs request that the Court deny GAF's motion to dismiss in its entirety.

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Dated: September 30, 2021   Respectfully submitted,

                                         By: */s/ Liza M. Walsh*
                                               _____
                                               Liza M. Walsh
                                               Hector D. Ruiz
                                               WALSH PIZZI O'REILLY
                                               FALANGA LLP
                                               Three Gateway Center
                                               100 Mulberry Street, 15th Floor
                                               Newark, New Jersey 07102
                                               (973) 757-1100
                                               lwalsh@walsh.law
                                               hruiz@walsh.law

OF COUNSEL (*admitted pro hac vice*):

Adam R. Alper   Michael W. De Vries
Brandon H. Brown   KIRKLAND & ELLIS LLP
Natalie Flechsig   333 South Hope Street
KIRKLAND & ELLIS LLP   Los Angeles, CA 90071
555 California Street   (213) 680-8400
San Francisco, CA 94104
(415) 439-1400

Leslie Schmidt
KIRKLAND & ELLIS LLP
601 Lexington Avenue
New York, NY 10022
(212) 446-4800

Attorneys for Plaintiffs Eagle View Technologies, Inc.
and Pictometry International Corp.

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